

Amateur Computer Group of New Jersey NEWS

Volume 40, Number 03

March 2015

President's Note

Michael P. Redlich



2015 Trenton Computer Festival

This year's annual Trenton Computer Festival (TCF) will take place on Saturday, March 21 from 9:00am to 5:00pm. It will be a very special event as we celebrate the 40th TCF and the 10th TCF IT Professional Conference, held on Friday, March 20 from 8:30am to 5:00pm. The venue will once-again be at The College of New Jersey in Ewing, NJ.

As most of you already know, what makes this show different from others is the suite of talks that are available for a modest \$10.00 price-of-admission (via advance on-line purchase). I always say there's something for *everyone* at TCF as the talks aren't just for tech-savvy or IT professionals. We have the IT Professional Conference for this folks. This year's topics include **Net Neutrality**, **3D Printing**, **Wearable Technology**, **Internet of Things (IoT)**, among others.

(Continued On Page 3)



<http://www.acgnj.org>

Founded 1975

This newsletter was made by 100% pure Linux!

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ACGNJ Meetings

For the very latest news on ACGNJ meetings, please visit the ACGNJ Website (www.acgnj.org).

For news from OTHER clubs, please go to:

<http://www.acgnj.org/joomla/>

Lunics (Linux/UNIX): Monday, March 2, 8:00 PM
Andreas Meyer (lunics (at) acgnj.org)

Board of Directors Meeting: ~~Tues, March 3, 7 PM~~
POSTPONED until Friday, March 6.

Board of Directors Meeting: **Friday** Mar 6, **7 PM**
(Immediately *before* the **Main Meeting** below)

Mike Redlich (president (at) acgnj.org)

Main Meeting: Friday, March 6, 8:00 PM

Mike Redlich (president (at) acgnj.org)

Layman's Forum: Monday, March 9, 8:00 PM

Matt Skoda (som359 (at) gmail.com)

Java: Tuesday, March 10, 7:30 PM

Mike Redlich (mike (at) redlich.net)

Investing: Thursday, March 12, 8:00 PM

Jim Cooper (jim (at) thecoopers.org).

NJ Gamers: Friday, March 13, 6:00 PM

Gregg McCarthy (greggmajestic (at) gmail.com)

Computer Workshop: **Saturday**, Mar. 14, **1:00 PM**

Bob Hawes (cmp.wrksbp (at) acgnj.org).

Web Browser: Monday, March 16, 7:30 PM

David McRitchie (firefox (at) acgnj.org)

C/C++: Tuesday, March 17, 7:30 PM

Bruce Arnold (barnold (at) ieee.org)

Window Pains: **CANCELED!!!**

(Due to its proximity to **TCF** below).

Trenton Computer Festival: Sat, Mar 21, 9AM-5PM

(See the President's Note on the left).

All meetings, unless otherwise noted, are at the Scotch Plains Rescue Squad, 1916 Bartle Ave, Scotch Plains, New Jersey. Directions and map on last page. 🗺

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ACGNJ News

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Submissions: Articles, reviews, cartoons, illustrations. Most common formats are acceptable. Graphics embedded in the document must also be sent as separate files. E-mail submissions to newsletter@acgnj.org preferred. **Always confirm.** Date review and include name of word processor used, your name, address and phone and name, address and phone of manufacturer, if available.

Tips for reviewers: Why does anyone need it? Why did you like it or hate it? Ease (or difficulty) of installation, learning and use. Would you pay for it?

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Publication Exchange: Other computer user groups are invited to send a subscription to ACGNJ at the address below. We will respond in kind.

Address Changes should be e-mailed to membership@acgnj.org or sent to ACGNJ at the address below.

Membership: Regular (now includes *all* family members who reside at the same address): 1 year \$25, 2 years \$40, 3 years \$55. Student: 1 year \$20. Senior Citizen (over 65): 1 year \$20, 3 years \$45. Send name, address and payment to ACGNJ, PO Box 135, Scotch Plains NJ 07076.

Typographic Note: This ACGNJ News was produced using Scribus 1.3.3.13. Font families used are Times New Roman (TT) for body text, Arial (TT) for headlines.

E-Mail Addresses

Here are the e-mail addresses of ACGNJ Officers, Directors and SIG Leaders (and the Newsletter Editor). This list is also at (<http://www.acgnj.org/officers.html>).

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This year's theme is **TCF@40: Exploring Our Past and Exploring Our Future - A Look Back and A Leap Forward**. We have invited attendees of TCF from its very early years who will receive special recognition. There will be presentations on the history of TCF.

In-sync with our theme will be this year's Keynote Speaker, **Dan Rosenbaum**, President and Editor-in-Chief of Center Ring Media, presenting his keynote entitled, **Approaching Singularity**.

Other featured speakers include ACGNJ's **Barry Burd**, who has a talk on **Google Gadgets** and a workshop on **Developing Apps for Android**, and TCNJ's **Peter DePasquale**, who is facilitating a workshop on **Introduction to Programming in the Cloud**. Please note that this workshop requires working knowledge of UNIX, Secure Shell (SSH), and Java.

As many of you know, I have been presenting my C++ and Java talks in my own track, **Object Oriented Programming (OOP) University**.

However, required business travel will prevent me from presenting at TCF this year, but I have made arrangements for substitute speakers. As of this writing, ACGNJ's **Scot Jenkins** will present the two C++ talks and the **Introduction to Object-Oriented Programming and Design Principles** talk. Tentatively scheduled to present my two Java talks are either **Barry Burd** or Chariot Solutions's **Ken Rimple**. There is a good possibility that I may be able to attend the banquet.

TCF 2015 will once-again be a one-day festival with compelling talks, presentations and flea market. In the high technology area, one year can mean very dramatic changes in both hardware and software. It is not easy to keep up with it all – and that is exactly why we need to have this yearly get-together.

I hope you will consider attending or even volunteering (we need lots of volunteers!) at TCF 2015. All you need to know about this year's festival can be found at <http://www.tcf-nj.org/> I would also encourage you to tell all your friends!

ACGNJ Announcements

Main Meeting

Friday, March 6, 2015, 8:00 PM to 10:00 PM.

Scheduled Topic: The Future of Newspaper Reporting.

Scheduled Speaker: Mark Kitchen.

Window Pains Meeting

~~Friday, March 20, 2015~~

CANCELED!!!

Due to its proximity to **TCF**. (See Page 1).

ACGNJ Investment Meeting Summary (Feb. 12, 2015)

Philip Lees, ACGNJ

Fortunately, the snow missed the area again and February's meeting went ahead with **11** attendees.

Jim Cooper started with his presentation of a "Rounded-Bottom Breakout" system, which was very interesting and enjoyed by everyone. This setup has proven to be very difficult to scan for, but Jim demonstrated that it is possible to do so with correct criteria. We examined a number of stocks that were selected from Thursday's scan of the market that met the selection criteria. Furthermore, Jim provided all attendees with a manual and scanning methodologies for the system. Fantastic Job, Jim.

Jim then moved on to his "Check-my-Ticker"

discussion, where attendees can ask for their Ticker(s) to be checked by Jim and the group. We examined BNO, USO, AXP, COST and TSLA.

Thanks to everybody who attended, I hope that you all can make very good use of what Jim provided to us. Please attend the meetings, everybody learns from them. We hope to see you at March's meeting, **3/12/2015**. Also, please send an email to Jim if you would like any trading topic to be discussed, or if you would like to discuss any trading preferences that you have. Others would like to hear your trading ideas, too. Thank you.

Philip Lees

Let's Get Small

Bob Hawes, ACGNJ

I stole (oops, I mean “borrowed”) this article's title from a comedy routine by Steve Martin. He debuted it on Saturday Night Live in 1977, and it became the title track on his first live comedy album. (*Let's Get Small*, Warner Bros, 1977), which won the Grammy Award for Best Comedy Album in 1978. Don't worry, though, *we're* not the ones who'll be getting small this time. I'm referring to some of the images in our newsletter. In a word, they're *too* good. (Their resolution is *much* higher than we actually need).

Fortunately, there's a way to use the GIMP (GNU Image Manipulation Program) to proportionately reduce an image's size (and thus its resolution). Launch GIMP, then click on the Tools drop-down menu, then click on the Transform Tools sub-menu, and then click on the Scale tool. Inside the window that pops up, there are Width and Height boxes. Just to their right is a graphical indicator that controls whether the Width and Height boxes are ganged together or not. Click on it. Then go to the drop-arrow box that controls unit selection, and change it

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them Mike-Kth1.jpg, HOTY-Awd.jpg and Mike-Bob1.jpg. Their original sizes (again, from left to right) were 5.2 MB (5,453,284 bytes), 3.8 MB (4,025,080 bytes) and 1.6 MB (1,712,170 bytes). As I was originally assembling the April 2014 issue, I used the GIMP to crop all three images to the sizes that I wanted. In addition, I removed some “flare” from HOTY-Awd.jpg and I “brightened” Mike-Bob1.jpg. After editing, their sizes were 685.9 KB (702,372 bytes), 1.5 MB (1,568,777 bytes) and 481.3 KB (492,890 bytes), respectively.

As an experiment, I used the GIMP again, to make GIF, PNG and TIFF versions of those files. The GIF versions came in as 1.8 MB (1,938,626 bytes), 4.6 MB (4,801,090 bytes), and 1.1 MB (1,200,819 bytes). PNG came in as 5.1 MB (5,344,028 bytes), 10.2 MB (10,744,529 bytes) and 3.3 MB (3,453,091 bytes); and TIFF came in as 17.2 MB (18,077,202 bytes), 38.5 MB (40,334,158 bytes) and 12.2 MB (12,833,330 bytes). All bigger. Some *a lot* bigger.

Next, using Scribus 1.3.3.13, I produced a PDF using the three GIF versions instead of the three JPG

from “pixels” to “percent”.

Here are specific examples: On page 3 of the April 2014 newsletter, there are three high resolution photographs. The first shows Mike Redlich presenting the 2014 Hobbyist of the Year award to Keith Sproul. The second is a closeup of Keith's plaque, and the third shows Mike belatedly presenting the 2013 award to Bob Hawes (me). Now, let's see what effect those three files had on the newsletter as a whole. The PDF file that I originally produced for the April 2014 newsletter measured 5.4 MB (5,701,650 bytes). When I removed those three images but did *nothing* else, I got an output PDF of 2.7 MB (2,855,258 bytes). Wow! All by themselves, those three photos had *DOUBLED* the size of our April 2014 issue !!!

Going into detail: Eric Hafler took the first two photos on his Canon EOS 60D Digital SLR camera, and Wendy Bell took the third on Mike's iPhone. All three originally came with sequential but *non*-descriptive filenames. From left to right, I renamed

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versions. That produced a PDF measuring 8.5 MB (8,899,040 bytes). Then I did the same for the three PNG versions, and got a PDF measuring 7.3 MB (7,641,052 bytes). After that, I did a PDF using the TIFF versions. It measured 7.1 MB (7,488,396 bytes). Just for fun, I also did a PDF using the original, *unedited* JPG images. It measured **13.5 MB** (14,127,535 bytes). Again, all bigger. Some *a whole lot* bigger.

Logically, none of those results make sense. (Except maybe for that last PDF. Which was just thrown in for “dramatic effect”, anyway). After all, those GIF, PNG and TIFF files are, essentially, copies of the same three JPG files. While the files might be bigger, their contents (the actual images) *can't* be any different from what was in those JPG files. Logically, they *have* to be exactly the same. Because they're *copies!* Well I'm sorry, Mr. Spock. Reality (represented by those larger PDF results) *always* trumps logic. We've got to live and work in the *real* world.

Happily for me (if not for Mr. Spock), those results

support my working theory (*not* yet proven) that JPG images produce the smallest PDF files. My second working theory (even *more* not yet proven) is that the increase in PDF file size for each image added will be approximately equal to the size of each JPG image file. That's why I set the Scale tool to "percent" above. I'm trying to predict the resultant file size for each size reduction operation. Percent gives me an easily understandable relative measure of size change.

Of course, it's not as easy as that. I'm assuming that each image file format has two components: data and "overhead". The data is the image itself, so it should have been decreased proportionally. On the other hand, "overhead" is that part of the file format that organizes and controls the data. While I'm sure that some people out there thoroughly understand how this works, *I'm* not one of them. Here, I'm just taking an educated guess.

Plus, I'm decreasing my images in *two* dimensions, not just one. So to reduce an image to about half of its size, I'll reduce it to 71%. ($0.71 \times 0.71 = 0.504$).

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bytes). *None* were as small as expected, but let's see what effect they had on a new PDF.

That new PDF came in at 2.8 MB (2,949,809 bytes). Right under 3 MB (our current target for maximum issue size). Adding the sizes of the three new JPG files (26,801 bytes + 55,242 bytes + 43,688 bytes), we get 125,731 bytes. Remember (from *way* above) that when I removed the original three images and made a new PDF, it measured 2,855,258 bytes. Adding 125,731 to 2,855,258 yields 2,980,989. This estimation is actually 31,180 bytes *larger* than the new PDF. That's close, and it "errs on the side of caution" (which is *good*). Plus, those three

Likewise, to get a quarter of its size, I'll use 50% ($0.5 \times 0.5 = 0.25$). For about one tenth of its size, I'll use 31% ($0.31 \times 0.31 = 0.096$, close enough to 0.1); and for one hundredth of its size, I'll use 10% ($0.1 \times 0.1 = 0.01$). Well, that's the plan, anyway. Let's see what reality has to say about it.

We'll start with the biggest one first. HOTY-Awd.jpg measures 1.5 MB (1,568,777 bytes). Dividing that by one hundred should put us in the area of 15 KB. Probably more shrinkage than we need; but we'll see. Using the corresponding double reduction size of 10% (calculated above), the new file (HOTY-Awd2.jpg) came in at 26.2 KB (26,801 bytes). The next largest file was Mike-Kth1.jpg. It measured 685.9 KB (702,372 bytes). It needed to be cut to about one twentieth of its size. That required a double reduction size of 23% ($0.23 \times 0.23 = 0.0530$). The new file (Mike-Kth2.jpg) came in at 53.9 KB (55,242 bytes). The last file was Mike-Bob1.jpg, measuring 481.3 KB (492,890 bytes). It also needed to be cut to about one twentieth of its size. It's new file (Mike-Bob2.jpg) came in at 42.7 KB (43,688

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replacement photos in the new PDF are *still* completely legible. So for this experiment, everything worked out just fine; and maybe, once we learn more, we can do even better.

Actually, the three images above were *not* the first experiments I tried using this method. Previously, I made some early size reduction experiments in our October 2014 issue. (Currently measuring 4.7 MB, it's *still* too big; but its initial size was 6.1 MB). Unfortunately, I was in a rush to meet my newsletter production deadline, so I *didn't* record the exact steps that I took. How negligent of me. For now, though, we're going out with a win-win-win situation.

See you next month. ☺

Honey, A Robot Shrunk My Job!

Greg Skalka, President, Under the Computer Hood User Group, CA
Newsletter: Drive Light (www.uchug.org) president (at) uchug.org

I recently took a day trip alone with my 23-year-old daughter, which gave me the opportunity to find out more about her thoughts on the future. For the last five years she has lived about two hours away, so

these opportunities for me to gain insight into her life and attitudes are rare. I was a little surprised to find one of her concerns was that robots would eventually occupy all jobs. She said she and her

boyfriend had discussed this and wondered if one day everyone would be unemployed except for those that made robots (and she with a business marketing degree, of course).

I could write off some of her apprehension to the nine months so far spent looking for employment in her field of study, but this concern over technology eliminating jobs is a real issue. Modernization and mechanization have changed the career landscape in the past, but today's changes due to computer and communications technology, combined with increased globalization, may be coming faster than our society can cope with.

Since ancient times, mankind has sought to improve living conditions and decrease the labor required for a fulfilling existence. With the majority of early humans involved in agriculture, innovations were sought to reduce the labor in growing crops. The use of hand tools and plows and of animals in place of human labor allowed fewer people to grow more food. This allowed some who would otherwise be farmers the opportunity to pursue other professions

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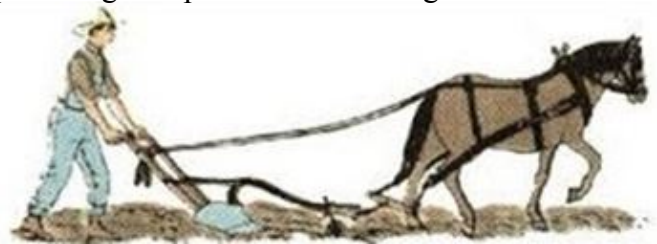
agricultural labor requirements reduced, rural towns and cities of the Midwest shrank as young people were forced to find work elsewhere.

The Industrial Revolution began 200 years ago, transforming manufacturing and industrial activities. Through most of the last century, the improvements brought by technology reduced the manual labor required to produce products. Though fewer workers were required to produce the same products, new industries were created that provided new jobs. As some classes of occupations became obsolete (like the ice delivery men that stocked the residential ice boxes), others came into being (like refrigerator repairmen). Though the changes to society were great, they came over a number of generations, allowing society to adapt.

The electronics and computer revolutions that started at the end of the last century have continued the increases to our productivity, but at a much greater pace. In addition to saving manual labor, computers reduce the mental efforts required in design and production, displacing workers with greater skills.

and develop other innovations.

My daughter is only two generations away from an agrarian life. My father was raised on a farm with no electricity or indoor plumbing. As a young boy, he mostly ate only what his parents obtained from their land and their animals. Over the last 70 years, with tractors and implements, better agricultural science and improved transportation, farm production has improved such that a fraction of the farmers can now provide many times the previous agricultural output. Today GPS-guided tractors optimize the land for planting and farmers can use drones to monitor their crops and livestock. These changes have greatly reduced the labor required to feed the world, providing inexpensive food to a global market. With



Old-fashioned tractor

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GPS-guided tractor

New computer, telecommunications and consumer electronics industries were created as a result of this technology, creating new occupations as others were made obsolete. These profound changes to society now occur in a much shorter time, in a generation or two, or less. When I was growing up, I could not consider a career as a Blockbuster Video sales clerk, as consumer videocassettes had not yet been invented. My daughter watched videos we rented for

her as a child; now as a young adult, the video rental stores are gone, and she watches DVDs from the Redbox machine in front of the grocery store or views streaming videos on her iPad. The video rental clerk is an occupation that came and went in my lifetime; Netflix, Hulu and that big red robot dispensing DVDs caused all those jobs to go away.

The video store clerk is the classic example of workers displaced by modern technology (and not replaced elsewhere in a successor industry in the same numbers), but there are plenty of others. Bank employment has been reduced, thanks to automated teller machines (ATMs), online banking and even Internet banks. I don't know if there were ever 400,000 bank tellers employed in the U.S., but today there are that many ATMs here. Now with the ability to deposit a check by taking a picture of it with your smart phone, the need for physical banks, and their branch employees, is reduced further.

Postal and parcel deliveries have been greatly improved by computerization and automation. FedEx, UPS and the other parcel delivery companies

have used technology to improve service, open new markets and keep costs down while getting more out of fewer employees. They have taken a lot of business away from the U.S. Postal Service, which has had to automate extensively to compete. I love the "postal robot", the automated mailing kiosk in my local post office. It is available to me at all hours of the day to weigh and mail my letters and packages and sell me postage. It does not require overtime pay or a pension, so I'm sure it reduces the USPS's labor costs.

The state Department of Motor Vehicles is another place where computers should have cut the number of employees required (but considering it is a government activity that might not be the case). Since most simple DMV activities like car registration renewals and address changes can be performed online, most people can avoid for years the unpleasant prospect of visiting the a DMV office in person. Even when you do, you can make an appointment online.

San Diego Gas and Electric used to employ legions

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of meter readers; now with the new smart meters they have installed over the last few years, all your energy usage is transmitted back to them electronically. Most grocery and general merchandise stores have installed at least a few self-checkout registers, reducing the number of employees needed. A Cupertino, CA hotel is introducing a robotic butler to make deliveries to guests; it motors around like R2-D2. Even NASA has installed a Robonaut on the International Space Station to help humans work and explore in space.

These days it is hard to think of a job that does not require the use of computers and related technologies. Computers and microcontrollers are being built into everything; these smart, networked devices improve our lives and save us labor. They also may be eliminating a lot of lower-paid jobs. If a robotic vacuum can clean your floors, you may not need to hire a maid. Some restaurants are introducing tablet-like devices customers can use to order food and pay their bills, reducing the wait staff required.

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Robonaut

I think the next big technology innovation will be the autonomous vehicle. The military already has unmanned aerial vehicles for surveillance and munitions delivery; some are remotely piloted, but others are truly autonomous. Once the private sector can legally use drones for business, mass production

will make them less expensive and more capable, opening up more possibilities for their use. Small surveillance UAVs may one day replace many police helicopter, patrol car and foot patrols. If Amazon has its way, all your packages will be delivered not by people but by quadcopters.

The self-driving cars being developed by Google and others will really provide benefits to mankind but will also cost jobs. A fully autonomous car would be a great help to those too disabled (or too impaired) to drive, and could have the potential to greatly reduce traffic accidents. Though the technology may already be here, once again the legal and social systems will need time to catch up. Meanwhile, we are getting bits and pieces of the self-driving car now, in the self-parking car and the car that automatically brakes to avoid a collision. Once the fully self-driving car is legal, look for taxi, bus and truck drivers to be in the unemployment lines.

Then the self-driving trucks will transport the raw materials to the robotic factories, so that more robots and self-driving vehicles can be manufactured.

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Quadcopter



Google Car

Backups and Disk Cloning

(A Meeting Recap)

Anne Moss, Secretary, Northern Neck Computer Users' Group, NJ

Newsletter: The Computer Link (www.nncug.net) mcmillan (at) va.metrocast.net

Brian Riley, Vice President of the NNCUG, gave a Membership Meeting presentation on computer backups and cloning of hard drives. Most of his presentation centered on what you can do to get your computer working quickly after a virus infestation or hard drive failure.

He explained that while backing up is necessary, the problem is that you have to have a working operating system and backup software to restore the backup you made. This may entail having to reinstall the operating system and backup software before you can even start to get your computer back.

He then explained the difference between cloning a disk and making a disk image. With cloning a disk, you get an exact copy of the disk, that if inserted into

your machine, will allow you to resume work from the point the clone was made. Disk imaging on the other hand, which is how backups work, makes a copy of the contents of the disk in some kind of compressed format (zipped), which then has to be restored by a program that can read that format.

Usually this is done with a “restore” disk, which is a bootable CD or DVD that contains enough of an operating system to run the backup software that can restore your drive, but requires you to make that disk ahead of time. If you haven't done that (and most backup software, including what comes with Windows 7, has utilities to make one of those disks), you need to restore from the original Operating System Install disks. This is a time consuming

process!

Brian showed us what he called a “toaster” drive, which is a USB or ESATA device that allows you to put a regular 3 ½ “ (desktop hard drive) or 2 ½” (laptop drive) in a slot, and run your backup or clone to it.

Tiger Direct has a listing of toaster drives here (NewEgg and Amazon have them also)

http://www.tigerdirect.com/applications/category/category_slc.asp?MfrId=0&CatId=2785

He then explained that if you have chosen a computer that has your C: accessible from the outside of the machine, you can take that disk and easily and quickly replace the damaged or infected drive with it.

Brian explained he had made a clone of the laptop drive he was giving the presentation on the night before, he simulated the computer becoming infected with a virus, shut it down, replaced the hard drive, and rebooted continuing the demonstration, all within three minutes.

He pointed out making a clone is not the complete

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day with an inappropriate up-date; virus infestation that makes your machine unusable and may scramble the contents of your hard drive; hard drive failure (sooner or later they all fail); or catastrophic event such as a fire or burglary.

Even if you are using anti-virus software, your machine can become infected by a virus that was built to get around that software. Often the first thing these viruses will do if they manage to get a foothold on your machine is turn off your anti-virus software.

Brian suggested a simple step: since many viruses work on the account level, you should always create a second account on your machine with administrative privileges. This may allow you to log in as that other user and run your anti-virus software that has been disabled under your main account.

He also suggested you should hover over any link with your mouse to see where it is sending you. Depending on the application, the address the link is sending you to will be displayed in a tool-tip or on the bottom of the screen. If that address goes

answer to backups: clones do not do versioning of your files for example, and it is still important to do a regular backup.

There are two key questions you have to ask yourself in choosing a backup method:

How important is my data? Is merely having a second copy of it enough, or does it have to survive a catastrophic event like a fire? If it is the latter, you must have an offsite backup, if it isn't then just a backup copy will do.

How much important data do I generate in what period of time? If you spend all day working on a project, then you probably want a backup on a daily basis. If redoing everything you have done for a week isn't a problem, then a weekly one will do. If all you do is play games on your computer and answer e-mails on line, then you probably don't need more than a clone – your data isn't changing.

Things that cause data loss come in many forms: from “happy clicking”, where you accidentally overwrite something you have been working on all

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somewhere unexpected, don't click on it!

What backup software should you use?

Windows 7 ships with backup software, and allows you to make a restore disk. It doesn't do cloning, it isn't easy to tell what it is backing up, and the backup requires a disk larger, sometimes double the size, of the drive you are using as your C: In other words you would need a one terabyte drive to back up a 500 gigabyte one.

It was suggested using Macrium Reflect, which is available as either free or paid software. The major difference for the home user between the two is the free version can't do incremental backups (that is, only backup the files that have changed since your last full backup). You can read more about it on their website:

www.macrium.com/reflectfree.aspx

Along with the free version, the Standard version costs \$49.99, and the Pro version costs \$58.99. There is cloning and backup software available from other vendors also.

Acronis is another backup/cloning program. Brian

and Rob stated it is much more bloated but not as user friendly as Macrium.


If you are interested, reviews of 10 of the top contenders can be found here:

<http://data-backup-software-review.toptenreviews.com/>

Brian emphasized that if your concern is getting your computer up and operating as quickly as possible from a simple hard drive failure or virus infestation,

then cloning is the way to go.

He also made the point that one does NOT have a backup UNTIL it is confirmed that the data can be RESTORED from the backup!

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Back to Basics

Windows 7: Turning Your Computer Off or On and Power Options

Jim Cerny, 2nd Vice President, Sarasota PCUG, FL

Newsletter: Sarasota Technology Monitor (www.spcug.org) jimcerny123 (at) gmail.com

It sounds like it should be easy – turning your computer on or off but, unfortunately, there is just a bit more to your computer than a light switch. I hope this article will make this most basic choice a lot clearer to you as well as tell you a little about the power options you have for your computer or tablet.

I have to admit that turning your computer on is

pretty easy. You press the “on” button on your computer, a light or two may come on, and then you wait. What’s going on when your computer is going through all the steps to start itself up? Well, the computer is checking itself, making sure the main disk (the “C” drive) is working, and then it must load the “operating system” or main program before

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you can do anything. In other words, it must start the Windows program on a windows computer or the Apple operating system on an Apple computer, etc. Only when it completes all these “startup” steps will the screen brighten up with your familiar desktop. You may also see a message or two that your computer wants you to know about – such as a new update available for one or more of your programs. If you do get such messages it is always wise to download and install the latest updates for any programs (or apps) that you have. There, that wasn’t so hard, was it?

Now how about turning your computer off? Many businesses tell their employees not to turn their computers off at all, but I always turn my computer completely off if I am not going to use it for a half hour or longer. I don’t want it connected to the internet when I am not using it and I just don’t want to use the electricity to keep it on even in a low power state. It is just my personal choice, but I just feel better knowing my computer is completely off when I am not using it.

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You probably know that you do NOT turn your computer off by pressing the “on” button. For a Windows computer prior to Windows 8, you should close all your windows first. This lets you see if you forgot to save something that you have been working on. Once all your windows are closed, then click on the “start button” or the “start orb” to get the start menu at the lower left corner of your desktop screen. On the start menu will be the command “shut down” at the bottom – click on it and wait until your screen goes blank and the lights on your computer go off. If you have a laptop computer, a light may stay on to show you that your laptop is connected to your electrical outlet. Now you may close your laptop and, if you are going to be away for a while, unplug the power cord (and phone cord if you have it connected to your computer). During the time your computer is shutting down, it is checking itself, making sure all is neat and tidy inside.

You do have other “power down” options available to you on the Start menu. If you click on the little white triangle just to the right of “Shut down” you

will get a list of these options. Some of these options are Switch user, Lock, Sleep, and Hibernate. Hovering your mouse over them will tell you briefly, in a small text box, what each one does. If you want to learn about these different options and perhaps use them, go to Google and enter the exact phrase of the option and you can get many detailed explanations. I almost never use these options.

When not using your computer for a day or longer, it is usually wise to disconnect the power cord. A lightning strike near your home may get in and damage your computer, even with a good surge protector connected. (This is a good idea for your TVs too). I had one client that had a surge protector in place but their phone cord was connected directly to the computer. A lightning bolt hit the utility pole outside their home and the surge came in through the phone line and destroyed their “C” drive completely even though, in this case, the surge protector worked fine.

Here are some helpful things to consider about turning your computer on or off:

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“Power options”. You will be amazed. There are options to control how much battery your laptop or tablet uses under various conditions (an important consideration if you are using the battery). Some of these conditions may include how long the computer should stay on when it is not being used and what power options happen when you close your laptop. You should at least view these options so that you know what settings you may wish to change. Note that some settings affect the screen brightness and if passwords are required when “waking up” your computer from a “sleep” or “hibernate” mode.

If you have a tablet device, you will also have several power settings and options. Most people only use tablets when they are NOT connected to external power – that is, they are used after the battery has been charged. If you are going to use a tablet (or a laptop) on its battery, you should know and adjust the power settings. These settings determine how long your battery will last.

Also, for tablet devices (such as iPads), pressing the power button briefly does not really turn your device

If your computer is not working (i.e. is “stuck”) and you cannot use the mouse at all, you can *force* a shutdown by holding down the “on” button for one or two seconds. Your computer will almost immediately “go blank” and shut down, but it will NOT do all the checking that it would do in a normal shut down. Then when you turn on your computer again, it will do all kinds of additional checks before it starts up. You should not do this “improper shut down” unless you have no other choice, but it should not harm your computer if you do.

If your computer takes a long time to start up, it could be due to a virus or something else wrong – it could be a hardware or a software problem. It would be wise to have it checked out by someone who knows what they are doing and getting it “cleaned up” so that it starts quickly and cleanly. Always do a good backup of all your important files first.

Laptops have even more power options than desktops because they use a battery. Even if you do not have a laptop, checkout the “Control panel” – then click on “Hardware and sound”, and then

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completely off. The screen goes blank and your device is in a very low power state, but it is not completely off. To turn my iPad completely off, I hold down the power button for a couple of seconds and then I see a “finger swipe” box which will completely shut down the device. To turn it back on after this requires me to hold down the on button for a couple of seconds as well. In normal use you do not need to completely turn your iPad off.

It seems that technology has taken over the simple “on” and “off” functions of our devices so that even these very basic steps have many options and settings to consider. And I think even more options will come in the future, more than we will ever need to use. Remember when TVs had two knobs? – One to turn the set on and adjust the volume, and the other to select the station? Now my living room has four remote controls each with fifty buttons. Welcome to the future.

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ACGNJ Reports

Java Users Group Report

Mike Redlich, ACGNJ

There were a total of six (6) attendees at our Java Users Group Meeting on February 10, 2015. This month's meeting was entitled, "Technical Overview of Gradle."

Gradle is an open source build automation system.

Gradle can automate the building, testing, publishing, deployment and more of software packages or other types of projects such as generated static websites, generated documentation or indeed anything else.

Main Meeting Report

Mike Redlich, ACGNJ

There were a total of 12 attendees at our Main Meeting on February 6, 2015. The originally scheduled topic was to work with one of the local schools, however, numerous efforts reaching out to the school went unanswered.

Mike Redlich decided to present a new product, web-X-ten, currently in release 0.5. Mike is one of four (4) team members creating this product. The team

consists of:

Karen Van Blarcum (Team Lead, Owner of Karen Van Blarcum, LLC)

James Polera (Architect, Lead Programmer)

Jim Kuo (Chief Operating Officer)

Mike Redlich (Front-End Developer)

The web site is <http://www.webxten.com/>.

Computer Workshop Report

Bob Hawes, ACGNJ

We had 3 attendees at our February 14 meeting. We checked out an HP laptop brought by a drop-in guest. It had been working erratically lately, and he'd deleted everything he could think of that might be causing problems. Afterwards, things had gotten better, but *not* completely good. (He also moved all of his data files to another computer). We checked his anti-virus software, and judged it to be OK. Then we ran the built-in HP diagnostics, which reported a problem with his hard disk. Now, modern hard disks are much too tightly packed to tolerate a fault *anywhere* on the drive. No matter what, it *will*

spread.

Since the laptop had 8 GB of memory, we judged it to be worth putting more money into. So we advised him to buy a new hard disk, as close in size to the existing disk as he could find. We also suggested that, before he invest more in Microsoft software, he give Linux Mint a try. He might like it. (As implied above, he also had a desktop computer. So he could afford to spend some time experimenting on the laptop). Due to snow falling outside, we only stayed a half hour past our official closing time of 4:00 PM.

Windows Pains Meeting Report

Mike Redlich, ACGNJ

There were a total of 10 attendees at our Window Pains Meeting on February 20, 2015. The originally scheduled topic was AngularJS. Due to the unavailability of the original external speaker, Mike Redlich decided to present, "Getting Started with MongoDB" instead.

MongoDB is the only database that harnesses the innovations of NoSQL (flexibility, scalability, performance) and builds on the foundation of relational databases (expressive query language, secondary indexes, strong consistency).

SIG News

LUNICS (Linux/Unix)

Andreas Meyer (lunics (at) acgnj.org)
<http://www.acgnj.org/groups/lunics.html>

LUNICS is a group for those who share an interest in Unix and similar operating systems. While we do quite a bit with Linux, we've also been known to discuss Solaris and BSD as well. Recent meetings have followed a Random Access format. See our web page for further information. (We meet on the first Monday of each month, at 8:00 PM). ☐

Main Meeting

Mike Redlich (president (at) acgnj.org)
<http://www.acgnj.org/groups/mainmeet.html>

We meet on the first Friday of the month, at 8:00 PM. Each December, this meeting includes our Annual Business Meeting and Officer Elections. *No* meetings in July or August. ☐

Layman's Forum

Matt Skoda (som359 (at) gmail.com)
<http://www.acgnj.org/groups/laymans.html>

This SIG discusses issues of interest to novice users or those planning to get started in computing. Watch our Web page for updates and announcements. We meet at the same time as the Hardware Workshop. (On the second Monday of the month, at 8:00 PM). *No* meetings in July and August. ☐

Hardware Workshop

Mike Reagan (hardware (at) acgnj.org)

This group is dedicated to repairing, refurbishing and/or recycling older computers. Ten people attended the first meeting, so there is still a market for this type of event. Although we looked at some of the older equipment stored in the back room, most of our time was spent in talking about past experiences and planning for the future. Hopefully, we can establish a viable long-term schedule of projects, and keep the interest of those who attended this inaugural meeting. If you have a hardware problem, bring it in and we can all help fix or demolish it. (No guarantees either way.) We meet at the same time as the Layman's Forum. (On the second Monday of each month, at 8:00 PM). ☐

Java

Mike Redlich (mike (at) redlich.net)
<http://www.redlich.net/javasig/javasig.html>

This SIG covers beginner, intermediate, and advanced level Java programming. Primary focus is on developing useful/practical applets and applications. (We meet on the second Tuesday of each month, at 7:30 PM). ☐

Mobile Devices

Brenda Bell (mobdevsig (at) acgnj.org)

The Mobile Devices SIG focuses largely on current-generation cellphones and smart phones (such as Blackberry, Android, iPhone) which bridge the gap between basic cell phones and traditional computers, and how they can help you manage and organize your life. Our membership ranges from those who have recently acquired their first, basic cellphone to those who develop applications for today's modern smart phones, iPods, and ultra-portable computers. While we expect to spend much of our time investigating the built-in features and specialized applications available to modern smart phones, if you bring your basic (or multimedia) cell phone, iPod, or other mobile device with questions on how to use it, where to find applications, or what features they have, we are always happy to help! Meet and greet and plan where this event goes. Bring all your ideas, PDAs, fancy phones, etc. (We meet on the second Wednesday of alternate months (we get the even ones), at 7:30PM). ☐

Computer Workshop

Bob Hawes (bob.hawes (at) acgnj.org)

ACGNJ has not held a daytime meeting in quite a while, so we've decided to try again. Our inspiration: The Philadelphia Area Computer Society holds only *one* meeting a month, but it's a biggie. On the third Saturday, from 8:00 AM to 3:00 PM, they hold *seventeen* different meetings, four at a time in four different rooms. Apparently, there *is* an audience for Saturday daytime meetings. We're starting smaller, though. Just one room (our usual) from **1:00 PM to 4:00 PM**. We're calling it Computer Workshop, after the meetings that Burke Mawby held in Aberdeen,

NJ from 1989 to 2007. Our format (to start, anyway) will be random access. We meet on the Saturday immediately following the second Friday of the month. Most times, this is the second Saturday, but it **can** occasionally be the third Saturday. Please check the schedule on Page 1 to be sure. ☞

Investment Software

Jim Cooper (jim (at) thecoopers.org)

http://www.acgnj.org/groups/sig_investment.html

The Investment SIG continues with presentations on how to use analysis programs TC2000 and TCNet. Large charts are presented on our pull down screen and illustrate the application of computer scans and formulas to find stocks for profitable investments. Technical analysis determines buy points, sell points and projected moves. Technical analysis can also be used on fundamentals such as earnings, sales growth, etc. We're no longer focusing on just Telechart. If you are using (or interested in) Tradestation, eSignal, VectorVest, or just in learning how to select and use charting and technical analysis, come join us!! (We meet on the second Thursday of the month, at 8 PM). ☞

NJ Gamers

Gregg McCarthy (greggmajestic (at) gmail.com)

<http://www.NJGamers.com>

www.lanparty.com

The Friday Night Frag starts at 6:00 PM on the second Friday of each month, and keeps going until 12 Noon on Saturday - 18 hours for 5 bucks!

BYOC - Bring your own computer.

BYOF - Bring your own food.

And if you don't like sitting on metal folding chairs...

BYO chair! ☞

Web Browser (Formerly Firefox)

David McRitchie (firefox (at) acgnj.org).

This SIG is an open forum for all Firefox and Mozilla techniques and technologies, to encourage study and development of web sites of all kinds. All browsers will be considered and examined. All members and guests are invited to check out the design concepts and voice their opinion. (We meet on the third Monday of each month, at 7:30 PM). ☞

C/C++ Programming

Bruce Arnold (barnold (at) ieee.org)

<http://acgnj.barnold.us/index.html>

This is a forum for discussion of programming in general, beginning and intermediate level C, C++, C-Win programming, hardware, algorithms, and operating systems. We demonstrate real programming in a non-intimidating way, presenting complete code for working programs in 3-5 sheets of paper. (We meet on the third Tuesday of each month, at 7:30 PM). **No** meetings in July or August. ☞

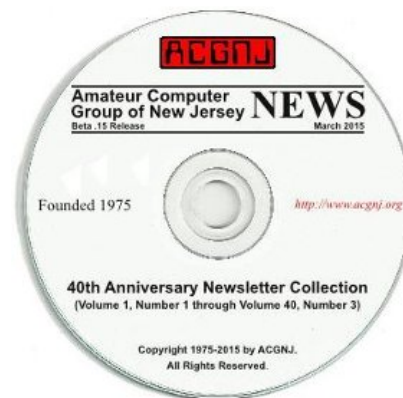
Window Pains

John Raff (jraff (at) comcast.net)

<http://www.acgnj.org/groups/winpains.html>

Intended to provide members with Windows oriented discussions, Microsoft and Linux style. Directed to more technological level of attendee, but newbies are welcomed. (We meet on the third Friday of the month at 8:00 PM). **No** meetings in July or August. ☞

40th Anniversary Newsletter CD Now On Sale



Beta .15 Release.

\$8.00, including postage.

(\$7.00 if you pick up a copy at a meeting).

Get yours today!

Back Issues Still Needed

Our collection remains incomplete. Below is a list of missing newsletters. Anyone who lends us one of these (or supplies a good clear copy) will receive the next CD as our thanks.

1975: #2 and #3 (dates uncertain).

1976: January.

1984: August.

1985: June, July, August, September. ☞

Guru Corner

If you need help with any of the technologies listed below, you can call on the person listed. Please be considerate and call before 10 PM.

Software

HTML	Mike Redlich	908-246-0410
	Jo-Anne Head	908-769-7385
ColdFusion	Jo-Anne Head	908-769-7385
CSS	Frank Warren	908-756-1681
	Jo-Anne Head	908-769-7385
Java	Mike Redlich	908-246-0410
C++	Bruce Arnold	908-735-7898
	Mike Redlich	908-246-0410
ASP	Mike Redlich	908-246-0410
Perl	John Raff	973-560-9070
	Frank Warren	908-756-1681
XML	Mike Redlich	908-246-0410
Genealogy	Frank Warren	908-756-1681
Home Automation	Frank Warren	908-756-1681

Operating Systems

Windows 3.1	Ted Martin	732-636-1942
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ACGNJ T-Shirts For Sale



(Front)



(Back)

L, XL: \$15.00

M: 2 for \$15.00

bob.hawes (at) acgnj.org

ACGNJ MEMBERSHIP APPLICATION

Sign up online at <http://www.acgnj.org/membershipApplication.html> and pay dues with PayPal.

US/CANADA		Dues	STUDENT	SENIOR CITIZEN (Over 65)
1 Year	\$25		\$20	\$20
2 Years	\$40			
3 Years	\$55			\$45

Mail this application and your check to:
 AMATEUR COMPUTER GROUP OF NEW JERSEY, INC., P.O. BOX 135, SCOTCH PLAINS, NJ 07076

☐ New Member ☐ Renewal ☐ Address Change

First Name _____ Last Name _____ Phone _____

Mailing Address _____ E-Mail _____

City _____ State _____ Zip _____ URL _____

What topics would you like to see covered at club meetings? _____

Other Local Computer Groups

Princeton Macintosh User Group: 7:15 pm 2nd Tuesday, Jadwin Hall, A-10, Washington Rd, Princeton, (609) 252-1163, www.pmug-nj.org	Linux Users Group in Princeton: 7 pm, 2nd Wednesday, Lawrence Branch Mercer Library, Rt#1 & Darrah Lane, Lawrence NJ http://www.lugip.org	New York PC: 3rd Thurs, 7 pm, PS 41, 116 W 11th St. For info call hotline, (212) 533-NYPC, http://www.nypc.org
Computer Education Society of Philadelphia: Meetings & Workshops at Jem Electronics, 6622 Castor Ave, Philadelphia PA. www.cesop.org/	Brookdale Computer Users Group: 7 pm, 3rd Friday, Brookdale Community College, Bldg MAS Rm 100, Lincroft NJ. (732)-739-9633. www.bcug.com	NJ Macintosh User Group: 8 pm, 3rd Tuesday, Allwood Branch Library, Lyall Rd, Clifton NJ. (201) 893-5274 http://www.njmug.org
PC User Group of So. Jersey: 2nd Mon., 7 pm, Trinity Presb. Church, 499 Rt 70 E, Cherry Hill, NJ. L. Horn, (856) 983-5360	Hunterdon Computer Club: 8:30 am, 3rd Sat, Hunterdon Medical Center, Rt 31, Flemington NJ, www.hunterdoncomputerclub.org , (908) 995-4042.	NY Amateur Computer Group: 2nd Thurs, 7 pm, Rm 806 Silver Bldg, NYU, 32 Waverly Pl, NYC. http://www.nyacc.org
Morris Micro Computer Club: 7 pm 2nd Thurs, Morris County Library, Hanover Ave, Morristown NJ, (973) 267-0871. http://www.morrismicro.com	Central Jersey Computer Club: 8 pm, 4th Friday, Rm 74, Armstrong Hall, College of NJ. Rich Williams, (609) 466-0909.	NJ PC User Group: 2nd Thurs, Monroe Rm at Wyckoff Public Library, 7 pm. Maureen Shannon, (201) 853-7432, www.njpcug.org
Philadelphia Area Computer Society: 3rd Sat, 12 noon Main Meeting, groups 8 am-3 pm. Upper Moreland Middle School, Hatboro PA. (215) 764-6338. www.pacsnet.org	NJ Computer Club: 6:15 pm, 2nd Wednesday except Jul & Aug, North Branch Reformed Church, 203 Rt 28, Bridgewater NJ. http://www.njcc.org	Princeton PC Users Group: 2nd Monday, Lawrenceville Library, Alt Rt 1 & Darrah Lane, Lawrenceville, Paul Kurivchack (908) 218-0778, http://www.ppcug-nj.org

Classified

FREE TO MEMBERS. Use our classified ads to sell off your surplus computer stuff. Send copy to Classified, ACGNJ NEWS, P.O. Box 135, Scotch Plains NJ 07076 or e-mail to the editor: [editor\(at\)acgnj.org](mailto:editor(at)acgnj.org). Classified ads are free to members, one per issue. Non-members pay \$10. Send check payable to ACGNJ Inc. with copy. Reasonable length, please.



Radio and TV Programs

Computer Radio Show, WBAI 99.5 FM, NY, Wed. 8-9 p.m.

Software Review, The Learning Channel, Saturday 10-10:30 p.m.

On Computers, WCTC 1450 AM, New Brunswick, Sunday 1-4 p.m. To ask questions call (800) 677-0874.

PC Talk, Sunday from 8 p.m. to 10 p.m., 1210 AM Philadelphia. 1800-876-WPEN



Directions to Meetings at Scotch Plains Rescue Squad, 1916 Bartle Ave., Scotch Plains NJ

From New York City or Northern New Jersey

Take Route 1&9 or the Garden State Parkway to US 22 Westbound.

From Southern New Jersey

Take Parkway north to Exit 135 (Clark). Stay on left of ramp, follow circle under Parkway. Bear right to Central Avenue; follow to Westfield and under RR overpass. Left at light to North Avenue; follow to light in Fanwood. Right on Martine (which becomes Park Ave). Right on Bartle Ave in middle of shopping district. Scotch Plains Rescue Squad (2-story brick) is located on the right. Do not park in the row next to the building. You'll be towed.

From I-78 (either direction)

Take exit 41 (Scotch Plains); follow signs to US 22. Turn right at light at bottom of hill and use overpass to cross Rt. 22. Follow US 22 Westbound directions.

From US 22 Westbound

Exit at Park Avenue, Scotch Plains after McDonalds on the right, diagonally opposite Scotchwood Diner on the left, immediately before the overpass. After exiting, turn left at the light and use overpass to cross US 22. Bear right at bottom of ramp to continue to south on Park Avenue. Turn left at the second light (a staggered intersection). Scotch Plains Rescue Squad (2-story brick) is on the right. Do not park in the row next to the building - you'll be towed. We meet on the second floor, entering by the door at the right front of the building.

From Western New Jersey

Take US 22 Eastbound to the Park Avenue exit. The exit is about a mile past Terrill Road and immediately past the overpass. Exit onto Park Avenue South and follow the directions above to the Rescue Squad building.